

MSU - Center for Advanced Vehicular Systems P.O. Box 6343 Mississippi State, MS 39762

Dr. Mark E. Keenum

AGENCY ADDRESS CHIEF EXECUTIVE OFFICER

	Actual Expenses FY Ending June 30, 2011	Estimate Expenses FY Ending June 30, 2012	Requested for FY Ending June 30, 2013	Requested Increase (+) or Decrease (-) FY 2013 vs. FY 2012 (Col. 3 vs. Col. 2)	
				AMOUNT	PERCENT
<b>I. A. PERSONAL SERVICES</b>					
1. Salaries, Wages & Fringe Benefits (Base)	2,332,938	2,337,050	2,337,050		
a. Additional Compensation			116,853		
b. Proposed Vacancy Rate (Dollar Amount)					
c. Per Diem					
<b>Total Salaries, Wages &amp; Fringe Benefits</b>	<b>2,332,938</b>	<b>2,337,050</b>	<b>2,453,903</b>	<b>116,853</b>	<b>5.00%</b>
2. Travel					
a. Travel & Subsistence (In-State)	14,776	15,000	21,000	6,000	40.00%
b. Travel & Subsistence (Out-of-State)	9,478	10,000	15,500	5,500	55.00%
c. Travel & Subsistence (Out-of-Country)					
<b>Total Travel</b>	<b>24,254</b>	<b>25,000</b>	<b>36,500</b>	<b>11,500</b>	<b>46.00%</b>
<b>B. CONTRACTUAL SERVICES (Schedule B):</b>					
a. Tuition, Rewards & Awards	710	500	2,000	1,500	300.00%
b. Communications, Transportation & Utilities	1,347	1,355	1,800	445	32.84%
c. Public Information					
d. Rents	3,150	1,000	4,000	3,000	300.00%
e. Repairs & Service	30,941	31,550	40,000	8,450	26.78%
f. Fees, Professional & Other Services	2,281	2,065	2,600	535	25.90%
g. Other Contractual Services	796,558	296,595	324,895	28,300	9.54%
h. Data Processing	76,899	78,850	102,600	23,750	30.12%
i. Other					
<b>Total Contractual Services</b>	<b>911,886</b>	<b>411,915</b>	<b>477,895</b>	<b>65,980</b>	<b>16.01%</b>
<b>C. COMMODITIES (Schedule C):</b>					
a. Maintenance & Construction Materials & Supplies	444	475	500	25	5.26%
b. Printing & Office Supplies & Materials	24,122	24,700	33,300	8,600	34.81%
c. Equipment, Repair Parts, Supplies & Accessories					
d. Professional & Scientific Supplies & Materials					
e. Other Supplies & Materials	67,023	70,050	83,800	13,750	19.62%
<b>Total Commodities</b>	<b>91,589</b>	<b>95,225</b>	<b>117,600</b>	<b>22,375</b>	<b>23.49%</b>
<b>D. CAPITAL OUTLAY:</b>					
<b>1. Total Other Than Equipment (Schedule D-1)</b>					
<b>2. Equipment (Schedule D-2):</b>					
b. Road Machinery, Farm & Other Working Equipment					
c. Office Machines, Furniture, Fixtures & Equipment	23,000	16,000	16,500	500	3.12%
d. IS Equipment (Data Processing & Telecommunications)					
e. Equipment - Lease Purchase					
f. Other Equipment	5,039		159,322	159,322	
<b>Total Equipment (Schedule D-2)</b>	<b>28,039</b>	<b>16,000</b>	<b>175,822</b>	<b>159,822</b>	<b>998.88%</b>
<b>3. Vehicles (Schedule D-3)</b>					
<b>4. Wireless Comm. Devices (Schedule D-4)</b>					
<b>E. SUBSIDIES, LOANS &amp; GRANTS (Schedule E):</b>	<b>537,585</b>	<b>453,000</b>	<b>516,000</b>	<b>63,000</b>	<b>13.90%</b>
<b>TOTAL EXPENDITURES</b>	<b>3,926,291</b>	<b>3,338,190</b>	<b>3,777,720</b>	<b>439,530</b>	<b>13.16%</b>
<b>II. BUDGET TO BE FUNDED AS FOLLOWS:</b>					
Cash Balance-Unencumbered					
General Fund Appropriation (Enter General Fund Lapse Below)	3,926,291	3,338,190	3,777,720	439,530	13.16%
State Support Special Funds					
Federal Funds _____ Other Special Funds (Specify) _____					
Less: Estimated Cash Available Next Fiscal Period					
<b>TOTAL FUNDS (equals Total Expenditures above)</b>	<b>3,926,291</b>	<b>3,338,190</b>	<b>3,777,720</b>	<b>439,530</b>	<b>13.16%</b>
GENERAL FUND LAPSE					
<b>III. PERSONNEL DATA</b>					
Number of Positions Authorized in Appropriation Bill					
a.) Full Perm	55	55	55		
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L	2	2	2		
Average Annual Vacancy Rate (Percentage)					
a.) Full Perm					
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L					

Approved by: \_\_\_\_\_  
 Official of Board or Commission  
 Budget Officer: Mr. Don Zant / dzant@budgetplan.msstate.edu  
 Phone Number: 662-325-2231

Submitted by: Dr. Mark E. Keenum  
 Name  
 Title: President  
 Date: July 22, 2011

**REQUEST BY FUNDING SOURCE**

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2011 Actual Amount	% Of Line Item	% Of Total Budget	FY 2012 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2013 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	2,332,938	100.00%		2,337,050	100.00%		2,453,903	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Salaries</b>	<b>2,332,938</b>		<b>59.41%</b>	<b>2,337,050</b>		<b>70.00%</b>	<b>2,453,903</b>		<b>64.95%</b>
1. General State Support Special (Specify)	24,254	100.00%		25,000	100.00%		36,500	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Travel</b>	<b>24,254</b>		<b>0.61%</b>	<b>25,000</b>		<b>0.74%</b>	<b>36,500</b>		<b>0.96%</b>
1. General State Support Special (Specify)	911,886	100.00%		411,915	100.00%		477,895	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Contractual</b>	<b>911,886</b>		<b>23.22%</b>	<b>411,915</b>		<b>12.33%</b>	<b>477,895</b>		<b>12.65%</b>
1. General State Support Special (Specify)	91,589	100.00%		95,225	100.00%		117,600	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Commodities</b>	<b>91,589</b>		<b>2.33%</b>	<b>95,225</b>		<b>2.85%</b>	<b>117,600</b>		<b>3.11%</b>

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2011 Actual Amount	% Of Line Item	% Of Total Budget	FY 2012 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2013 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Other Than Equipment</b>									
1. General State Support Special (Specify)	28,039	100.00%		16,000	100.00%		175,822	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Equipment</b>	<b>28,039</b>		<b>0.71%</b>	<b>16,000</b>		<b>0.47%</b>	<b>175,822</b>		<b>4.65%</b>
1. General State Support Special (Specify)									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Vehicles</b>									
1. General State Support Special (Specify)									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Wireless Comm. Devices</b>									

**REQUEST BY FUNDING SOURCE**

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2011 Actual Amount	% Of Line Item	% Of Total Budget	FY 2012 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2013 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	537,585	100.00%		453,000	100.00%		516,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>Total Subsidies, Loans &amp; Grants</b>	<b>537,585</b>		<b>13.69%</b>	<b>453,000</b>		<b>13.57%</b>	<b>516,000</b>		<b>13.65%</b>
1. General State Support Special (Specify)	3,926,291	100.00%		3,338,190	100.00%		3,777,720	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Federal Other Special (Specify)									
9.									
10.									
11.									
12.									
<b>TOTAL</b>	<b>3,926,291</b>		<b>100.00%</b>	<b>3,338,190</b>		<b>100.00%</b>	<b>3,777,720</b>		<b>100.00%</b>

**SPECIAL FUNDS DETAIL**

MSU - Center for Advanced Vehicular Systems  
Name of Agency

<b>S. STATE SUPPORT SPECIAL FUNDS</b>		(1) Actual Revenues FY 2011	(2) Estimated Revenues FY 2012	(3) Requested Revenues FY 2013
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Budget Contingency Fund	BCF - Budget Contingency Fund			
Education Enhancement Fund	EEF - Education Enhancement Fund			
Health Care Expendable Fund	HCEF - Health Care Expendable Fund			
Tobacco Control Fund	TCF - Tobacco Control Fund			
ARRA - Education, Discretionary, FMAP	ARRA - Education, Discretionary, FMAP			
Hurricane Disaster Reserve Fund	HDRF - Hurricane Disaster Reserve Fund			
<b>Section S TOTAL</b>				

<b>A. FEDERAL FUNDS*</b>		Percentage Match Requirement		(1) Actual Revenues FY 2011	(2) Estimated Revenues FY 2012	(3) Requested Revenues FY 2013
Source (Fund Number)	Detailed Description of Source	FY 2012	FY 2013			
	Cash Balance-Unencumbered					
<b>Section A TOTAL</b>						

<b>B. OTHER SPECIAL FUNDS (NON-FED'L)</b>		(1) Actual Revenues FY 2011	(2) Estimated Revenues FY 2012	(3) Requested Revenues FY 2013
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
<b>Section B TOTAL</b>				

<b>Section S + A + B TOTAL</b>				
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<b>C. TREASURY FUND/BANK ACCOUNTS*</b>			(1) Reconciled Balance as of 6/30/11	(2) Balance as of 6/30/12	(3) Balance as of 6/30/13
Name of Fund/Account	Fund/Account Number	Name of Bank (If Applicable)			

\* Any non-federal funds that have restricted uses must be identified and narrative of restrictions attached.

**NARRATIVE OF SPECIAL FUNDS DETAIL  
AND TREASURY FUND/BANK ACCOUNTS**

MSU - Center for Advanced Vehicular Systems

Name of Agency

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems  
AGENCY

Program No. \_\_\_\_\_ of \_\_\_\_\_ 2 Programs

SUMMARY OF ALL PROGRAMS

PROGRAM

	FY 2011 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,332,938				2,332,938
Travel	24,254				24,254
Contractual Services	911,886				911,886
Commodities	91,589				91,589
Other Than Equipment					
Equipment	28,039				28,039
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	537,585				537,585
<b>Total</b>	<b>3,926,291</b>				<b>3,926,291</b>
No. of Positions (FTE)	57.00				57.00

	FY 2012 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,337,050				2,337,050
Travel	25,000				25,000
Contractual Services	411,915				411,915
Commodities	95,225				95,225
Other Than Equipment					
Equipment	16,000				16,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	453,000				453,000
<b>Total</b>	<b>3,338,190</b>				<b>3,338,190</b>
No. of Positions (FTE)	57.00				57.00

	FY 2013 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	116,853				116,853
Travel	11,500				11,500
Contractual Services	65,980				65,980
Commodities	22,375				22,375
Other Than Equipment					
Equipment	159,822				159,822
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	63,000				63,000
<b>Total</b>	<b>439,530</b>				<b>439,530</b>
No. of Positions (FTE)					

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

**CONTINUATION AND EXPANDED REQUEST**

MSU - Center for Advanced Vehicular Systems

Program No. \_\_\_\_\_ of 2 Programs

AGENCY

**SUMMARY OF ALL PROGRAMS**

PROGRAM

FY 2013 Expansion/Reduction of Existing Activities					
	(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe					
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
<b>Total</b>					
No. of Positions (FTE)					

FY 2013 New Activities					
	(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe					
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
<b>Total</b>					
No. of Positions (FTE)					

FY 2013 Total Request					
	(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,453,903				2,453,903
Travel	36,500				36,500
Contractual Services	477,895				477,895
Commodities	117,600				117,600
Other Than Equipment					
Equipment	175,822				175,822
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	516,000				516,000
<b>Total</b>	<b>3,777,720</b>				<b>3,777,720</b>
No. of Positions (FTE)	57.00				57.00

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

**SUMMARY OF PROGRAMS  
FORM MBR-1-03sum**

MSU - Center for Advanced Vehicular Systems  
Agency Name

FUNDING REQUESTED FISCAL YEAR 2013

PROGRAM	GENERAL	ST.SUPP.SPECIAL	FEDERAL	OTHER SPECIAL	TOTAL
1. RESEARCH	3,114,042				3,114,042
2. PUBLIC SERVICE	663,678				663,678
SUMMARY OF ALL PROGRAMS	3,777,720				3,777,720

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

	FY 2011 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,097,799				2,097,799
Travel	6,484				6,484
Contractual Services	881,358				881,358
Commodities	55,084				55,084
Other Than Equipment					
Equipment	28,039				28,039
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	291,837				291,837
<b>Total</b>	<b>3,360,601</b>				<b>3,360,601</b>
No. of Positions (FTE)	52.29				52.29

	FY 2012 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,079,261				2,079,261
Travel	6,000				6,000
Contractual Services	336,915				336,915
Commodities	72,225				72,225
Other Than Equipment					
Equipment	11,000				11,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	285,036				285,036
<b>Total</b>	<b>2,790,437</b>				<b>2,790,437</b>
No. of Positions (FTE)	52.29				52.29

	FY 2013 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	103,964				103,964
Travel	10,500				10,500
Contractual Services	28,980				28,980
Commodities	20,375				20,375
Other Than Equipment					
Equipment	144,822				144,822
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	14,964				14,964
<b>Total</b>	<b>323,605</b>				<b>323,605</b>
No. of Positions (FTE)					

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

**CONTINUATION AND EXPANDED REQUEST**

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

FY 2013 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
<b>Total</b>				
No. of Positions (FTE)				

FY 2013 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
<b>Total</b>				
No. of Positions (FTE)				

FY 2013 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,183,225			2,183,225
Travel	16,500			16,500
Contractual Services	365,895			365,895
Commodities	92,600			92,600
Other Than Equipment				
Equipment	155,822			155,822
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	300,000			300,000
<b>Total</b>	<b>3,114,042</b>			<b>3,114,042</b>
No. of Positions (FTE)	52.29			52.29

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

	FY 2011 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	235,139				235,139
Travel	17,770				17,770
Contractual Services	30,528				30,528
Commodities	36,505				36,505
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	245,748				245,748
<b>Total</b>	<b>565,690</b>				<b>565,690</b>
No. of Positions (FTE)	4.71				4.71

	FY 2012 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	257,789				257,789
Travel	19,000				19,000
Contractual Services	75,000				75,000
Commodities	23,000				23,000
Other Than Equipment					
Equipment	5,000				5,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	167,964				167,964
<b>Total</b>	<b>547,753</b>				<b>547,753</b>
No. of Positions (FTE)	4.71				4.71

	FY 2013 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	12,889				12,889
Travel	1,000				1,000
Contractual Services	37,000				37,000
Commodities	2,000				2,000
Other Than Equipment					
Equipment	15,000				15,000
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	48,036				48,036
<b>Total</b>	<b>115,925</b>				<b>115,925</b>
No. of Positions (FTE)					

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

**CONTINUATION AND EXPANDED REQUEST**

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

FY 2013 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
<b>Total</b>				
No. of Positions (FTE)				

FY 2013 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
<b>Total</b>				
No. of Positions (FTE)				

FY 2013 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	270,678			270,678
Travel	20,000			20,000
Contractual Services	112,000			112,000
Commodities	25,000			25,000
Other Than Equipment				
Equipment	20,000			20,000
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	216,000			216,000
<b>Total</b>	<b>663,678</b>			<b>663,678</b>
No. of Positions (FTE)	4.71			4.71

Note: FY2013 Total Request = FY2012 Estimated + FY2013 Incr(Decr) for Continuation + FY2013 Expansion/Reduction of Existing Activities + FY2013 New Activities.

**PROGRAM DECISION UNITS**

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
	FY 2012 Appropriation	Escalations By DFA	Non-Recurring Items	Restoration Of Funds	Total Funding Change	FY 2013 Total Request		
<b>EXPENDITURES:</b>								
<b>SALARIES</b>	<b>2,079,261</b>			<b>103,964</b>	<b>103,964</b>	<b>2,183,225</b>		
GENERAL	2,079,261			103,964	103,964	2,183,225		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>TRAVEL</b>	<b>6,000</b>			<b>10,500</b>	<b>10,500</b>	<b>16,500</b>		
GENERAL	6,000			10,500	10,500	16,500		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>CONTRACTUAL</b>	<b>336,915</b>			<b>28,980</b>	<b>28,980</b>	<b>365,895</b>		
GENERAL	336,915			28,980	28,980	365,895		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>COMMODITIES</b>	<b>72,225</b>			<b>20,375</b>	<b>20,375</b>	<b>92,600</b>		
GENERAL	72,225			20,375	20,375	92,600		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>CAPITAL-OTE</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>EQUIPMENT</b>	<b>11,000</b>			<b>144,822</b>	<b>144,822</b>	<b>155,822</b>		
GENERAL	11,000			144,822	144,822	155,822		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>VEHICLES</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>WIRELESS DEV</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>SUBSIDIES</b>	<b>285,036</b>			<b>14,964</b>	<b>14,964</b>	<b>300,000</b>		
GENERAL	285,036			14,964	14,964	300,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>TOTAL</b>	<b>2,790,437</b>			<b>323,605</b>	<b>323,605</b>	<b>3,114,042</b>		

**FUNDING:**

GENERAL FUNDS	2,790,437			323,605	323,605	3,114,042		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
<b>TOTAL</b>	<b>2,790,437</b>			<b>323,605</b>	<b>323,605</b>	<b>3,114,042</b>		

**POSITIONS:**

GENERAL FTE	52.29					52.29		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
<b>TOTAL FTE</b>	<b>52.29</b>					<b>52.29</b>		

**PRIORITY LEVEL:**

				1				
	FY 2012 Appropriation	Escalations By DFA	Non-Recurring Items	Restoration Of Funds	Total Funding Change	FY 2013 Total Request		
<b>EXPENDITURES:</b>								
<b>SALARIES</b>	<b>257,789</b>			<b>12,889</b>	<b>12,889</b>	<b>270,678</b>		
GENERAL	257,789			12,889	12,889	270,678		
ST.SUP.SPECIAL								

**PROGRAM DECISION UNITS**

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
FEDERAL								
OTHER								
<b>TRAVEL</b>	<b>19,000</b>			<b>1,000</b>	<b>1,000</b>	<b>20,000</b>		
GENERAL	19,000			1,000	1,000	20,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>CONTRACTUAL</b>	<b>75,000</b>			<b>37,000</b>	<b>37,000</b>	<b>112,000</b>		
GENERAL	75,000			37,000	37,000	112,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>COMMODITIES</b>	<b>23,000</b>			<b>2,000</b>	<b>2,000</b>	<b>25,000</b>		
GENERAL	23,000			2,000	2,000	25,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>CAPITAL-OTE</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>EQUIPMENT</b>	<b>5,000</b>			<b>15,000</b>	<b>15,000</b>	<b>20,000</b>		
GENERAL	5,000			15,000	15,000	20,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>VEHICLES</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>WIRELESS DEV</b>								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>SUBSIDIES</b>	<b>167,964</b>			<b>48,036</b>	<b>48,036</b>	<b>216,000</b>		
GENERAL	167,964			48,036	48,036	216,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
<b>TOTAL</b>	<b>547,753</b>			<b>115,925</b>	<b>115,925</b>	<b>663,678</b>		

**FUNDING:**

GENERAL FUNDS	547,753			115,925	115,925	663,678		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
<b>TOTAL</b>	<b>547,753</b>			<b>115,925</b>	<b>115,925</b>	<b>663,678</b>		

**POSITIONS:**

GENERAL FTE	4.71					4.71		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
<b>TOTAL FTE</b>	<b>4.71</b>					<b>4.71</b>		

**PRIORITY LEVEL:**

				2				
--	--	--	--	---	--	--	--	--

**PROGRAM NARRATIVE**

Program Data Collected in Accordance with the  
Mississippi Performance Budget and Strategic Planning Act of 1994  
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY NAME

PROGRAM NAME

**I. Program Description:**

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

**II. Program Objective:**

The objective of CAVS is to serve Mississippi State University, government, and industry through research and development of advanced computational modeling, simulation, and design of physical systems to solve real world problems. CAVS houses multiple research groups that provide cross-disciplinary research capabilities to address advancing technologies to solve complex problems for industry and our customers. As a result of CAVS' application-driven, team-oriented approach to basic and applied research on complex industrially-relevant engineering problems, we have contributed to:

- \* improved vehicle performance and reduced design cycle time and cost;
- \* timely generation of knowledge on the behavior and capabilities of missile, flight, naval vessels and other physical systems;
- \* analysis of behavior and performance of engineering systems (including humans) under adverse or catastrophic conditions;
- \* development of high-fidelity simulation tools and training;
- \* simulation and design systems to both enable and support designers and manufacturers of land, sea, air and space vehicular systems.

**III. Current program activities as supported by the funding in Columns 6-15 (FY 12 Estimated & FY 13 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:****(D) Restoration of Funds:**

For FY2013, CAVS is requesting an increase in its State funding primarily to assist in acquiring a high-speed imaging system that includes lighting, lenses, mounting hardware, a computer and software for controlling the camera and archiving images, as well as the high speed camera itself. Typical applications of the system include, but are not limited to:

- \*Aerodynamics investigations
- \*Bio-mechanics studies
- \*Component safety testing
- \*Impact analysis
- \*Production line diagnostics
- \*Vehicle rollover testing
- \*Automotive Crash Testing
- \*Combustion Studies
- \*Ballistics/Detonics Research
- \*Particle Image Velocimetry (PIV)
- \*Biological & Chemical Microscopy
- \*Crack Propagation

**PROGRAM NARRATIVE**

Program Data Collected in Accordance with the  
Mississippi Performance Budget and Strategic Planning Act of 1994  
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

**I. Program Description:**

CAVS has proven to be a leading economic development engine for the State of Mississippi. In addition to the CAVS MSU campus facility, in support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. Nissan and its suppliers in Mississippi are in a global labor competition, so securing lasting jobs is an important activity. Further, there is an increased demand for engineers and technologists to support the increasingly complex problems. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 4-year period of 2006-2010, CAVS has had more than \$5 billion economic impact on the state and is responsible for over 2,400 jobs created or retained. Similar projects on behalf of other Mississippi companies help secure jobs throughout the state.

**II. Program Objective:**

Although CAVS research, development, and extension activities are important to Nissan and its suppliers in attaining its goals, it is also clear CAVS has a broader impact. We are already playing a role with the new PACCAR engine plant and SeverStal steel mill located near the Golden Triangle Regional airport. We are also working closely with Nucor, a more established steel firm in the state. CAVS current efforts have touched on many manufacturers and hundreds of employees in the State, especially via our workforce training efforts. From this foundation, CAVS brings the promise for enhanced productivity to further grow the employment base. Thus, the financial support for growing CAVS and its cadre of skilled technologists has significant and long-term implications to the State.

**III. Current program activities as supported by the funding in Columns 6-15 (FY 12 Estimated & FY 13 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:****(D) Restoration of Funds:**

For FY13, CAVS is requesting an increase in State funding in order to expand the engineering extension component of CAVS by replacing computers in the classroom at Canton. Original plans were to replace these units in FY10, however, reduced funding has precluded that from occurring. These computers are used frequently to teach workshops pertaining to solid modeling, simulation modeling, and statistical analysis.

**PROGRAM PERFORMANCE INDICATORS AND MEASURES**  
 Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic  
 Planning Act of 1994

MSU - Center for Advanced Vehicular Systems  
 AGENCY NAME

1 - RESEARCH  
 PROGRAM NAME

**PROGRAM OUTPUTS:** (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 # Agency Proposals	85.00	86.00	87.00
2 # Company Proposals	14.00	15.00	16.00
3 \$ Agency Proposals (in millions)	61.35	62.00	62.25
4 \$ Company Proposals (in millions)	1.06	1.08	1.11
5 Expenditures - Internal (in millions)	5.70	5.75	5.80
6 Expenditures - Agency (in millions)	16.10	16.15	16.20
7 Expenditures - Company (in millions)	0.31	0.32	0.33
8 # Awards - Agency	56.00	56.10	56.20
9 # Awards - Company	8.00	9.00	10.00
10 \$ Agency Awards (in millions)	16.80	16.90	17.00
11 \$ Company Awards (in millions)	0.27	0.27	0.28
12 # Managers	4.00	4.00	4.00
13 # Academic Faculty	37.00	38.00	39.00
14 # Research Professionals	101.00	102.00	103.00
15 # Support Staff	40.00	41.00	42.00
16 # Post Docs	25.00	26.00	27.00
17 # PhD Students Employed	72.00	74.00	76.00
18 # MS Students Employed	84.00	85.00	86.00
19 # Undergraduate Students Employed	132.00	133.00	134.00
20 # Journal Articles Submitted	4.00	5.00	6.00
21 # Conference Papers Submitted	1.00	2.00	3.00
22 # Authors of Proposals	40.00	42.00	44.00

**PROGRAM EFFICIENCIES:** (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Mangers	2.41	2.45	2.50
2 \$ Proposals / # Faculty & # Managers (in millions)	1.52	1.53	1.54
3 Expenditures / # Faculty & # Mangers	0.54	0.56	0.59
4 # Awards / # Faculty & # Managers	1.56	1.58	1.60
5 Expenditures / # Support Staff and Others (in millions)	0.48	0.50	0.52
6 # Publications/ # Faculty & # Managers	1.32	1.35	1.40
7 # Conference Papers / # Faculty & # Mangers	0.93	0.95	0.98
8 # Technical Reports / # Faculty & # Managers	0.22	0.24	0.26

**PROGRAM PERFORMANCE INDICATORS AND MEASURES**  
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic  
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems  
 AGENCY NAME

1 - RESEARCH  
 PROGRAM NAME

**PROGRAM OUTCOMES:** (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 Book/Book Chapters Published	5.00	6.00	7.00
2 Articles Published in Trade Journals	0.00	1.00	3.00
3 Articles Published in Peer-reviewed Journals	49.00	50.00	52.00
4 Peer-reviewed Conference Papers	38.00	40.00	41.00
5 Peer-reviewed Conference Abstracts & Posters	18.00	19.00	20.00
6 Theses/Dissertations	1.00	3.00	5.00
7 Technical Reports	9.00	10.00	11.00
8 Awards/Recognitions	3.00	4.00	5.00
9 Non-refereed Conf. Papers/Abstracts/Posters	13.00	14.00	15.00

**PROGRAM PERFORMANCE INDICATORS AND MEASURES**  
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic  
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

**PROGRAM OUTPUTS:** (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 # Agency Proposals	6.00	6.00	7.00
2 # Company Proposals	16.00	17.00	17.00
3 \$ Agency Proposals	1.22	1.24	1.25
4 \$ Company Proposals	0.78	0.79	0.80
5 Expenditures - Internal	0.62	0.63	0.64
6 Expenditures - Agencies	0.74	0.75	0.75
7 Expenditures - Company	0.09	0.10	0.10
8 Award - Agencies	3.00	4.00	4.00
9 Awards - Company	9.00	9.00	10.00
10 \$ Agency Awards	0.74	0.75	0.76
11 \$ Company Awards	0.29	0.30	0.31
12 Managers	2.00	2.00	2.00
13 # Academic Faculty	2.00	2.00	2.00
14 # Research Professionals	17.00	18.00	18.00
15 # Support Staff	5.00	5.00	5.00
16 # Undergraduate Students Employed	2.00	2.00	3.00
17 # Books/Articles Submitted or awaiting publication	0.00	1.00	1.00
18 # Conf Papers Submitted or Awaiting Publication	5.00	6.00	6.00
19 # of Authors of Proposals	10.00	11.00	11.00

**PROGRAM EFFICIENCIES:** (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Managers	5.50	6.00	6.25
2 \$ Proposals / # Faculty & Managers	0.50	0.51	0.52
3 Expenditures / # Faculty & Managers	0.36	0.37	0.37
4 # Awards / # Faculty & Managers	3.00	3.00	4.00
5 Expenditures / # Support Staff and Others	0.07	0.07	0.08
6 # Publications/# Faculty & Managers	0.00	1.00	1.00
7 # Papers Presented/# Faculty & Mangers	0.00	1.00	1.00
8 Tech Reports/# Faculty & Managers	0.75	0.80	0.82

**PROGRAM PERFORMANCE INDICATORS AND MEASURES**  
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic  
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems  
 AGENCY NAME

2 - PUBLIC SERVICE  
 PROGRAM NAME

**PROGRAM OUTCOMES:** (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2011</u> <u>ACTUAL</u>	<u>FY 2012</u> <u>ESTIMATED</u>	<u>FY 2013</u> <u>PROJECTED</u>
1 Book/Book Chapters Published	0.00	1.00	1.00
2 Articles Published in Trade Journals	0.00	1.00	1.00
3 Articles Published in Peer-reviewed Journals	0.00	1.00	1.00
4 Peer-reviewed Conference Papers	0.00	1.00	1.00
5 Peer-reviewed Conference Abstracts & Posters	0.00	1.00	1.00
6 Technical Reports	9.00	10.00	10.00
7 Awards/Recognitions	0.00	1.00	1.00

## PROGRAM 3% GENERAL FUND REDUCTION AND NARRATIVE EXPLANATION

MSU - Center for Advanced Vehicular Systems

	Fiscal Year 2012 Funding			FY 2012 GF PERCENT REDUCED
	Total Funds	Reduced Amount	Reduced Funding Amount	
<b>Program Name: (1) RESEARCH</b>				
GENERAL	2,790,437	( 83,713)	2,706,724	( 3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
<b>TOTAL</b>	<b>2,790,437</b>	<b>( 83,713)</b>	<b>2,706,724</b>	
<b>Narrative Explanation:</b> A 3% reduction would be absorbed by reducing the amount of cost share commitments.				
<b>Program Name: (2) PUBLIC SERVICE</b>				
GENERAL	547,753	( 16,433)	531,320	( 3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
<b>TOTAL</b>	<b>547,753</b>	<b>( 16,433)</b>	<b>531,320</b>	
<b>Narrative Explanation:</b> A 3% reduction would be absorbed by reducing the amount of cost share commitments.				
<b>SUMMARY OF ALL PROGRAMS</b>				
GENERAL	3,338,190	( 100,146)	3,238,044	( 3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
<b>TOTAL</b>	<b>3,338,190</b>	<b>( 100,146)</b>	<b>3,238,044</b>	

## Board of Trustees of Institutions of Higher Learning MEMBERS

MSU - Center for Advanced Vehicular Systems

Agency

A. Explain Rate and manner in which board members are reimbursed:

Board members are reimbursed through the Institutions of Higher Learning System Administration budget with a per diem of \$40 plus expenses.

B. Estimated number of meetings FY2012

12 (twelve)

C.	Names of Members	City, Town, Residence	Appointed By	Date of Appointment	Length of Term
1.	<u>Dr. L. Stacy Davidson, Jr.</u>	<u>Cleveland, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
2.	<u>Dr. Bettye Neely</u>	<u>Grenada, MS</u>	<u>Musgrove</u>	<u>June 2000</u>	<u>12 years</u>
3.	<u>Mr. Scott Ross</u>	<u>West Point, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
4.	<u>Ms. Amy Whitten</u>	<u>Oxford, MS</u>	<u>Musgrove</u>	<u>May 2000</u>	<u>12 years</u>
5.	<u>Mr. Ed Blakeslee</u>	<u>Gulfport, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
6.	<u>Mr. Bob Owens</u>	<u>Terry, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
7.	<u>Mr. Aubrey Patterson</u>	<u>Tupelo, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
8.	<u>Ms. Robin Robinson</u>	<u>Laurel, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
9.	<u>Mr. Alan W. Perry</u>	<u>Jackson, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
10.	<u>Ms. Christine L. Pickering</u>	<u>Biloxi, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
11.	<u>Mr. C.D. Smith, Jr.</u>	<u>Meridian, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
12.	<u>Dr. Douglas W. Rouse</u>	<u>Hattiesburg, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>

Identify Statutory Authority (Code Section or Executive Order Number)\*

Constitutional Amendment 213A of the Constitution of the State of Mississippi

\*If Executive Order, please attach copy.

**SCHEDULE B  
CONTRACTUAL SERVICES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>A. TUITION, REWARDS &amp; AWARDS (61010-61099)</b>			
61010 Tuition			
61020 Employee Training	710	500	2,000
<b>TOTAL (A)</b>	<b>710</b>	<b>500</b>	<b>2,000</b>
<b>B. TRANSPORTATION &amp; UTILITIES (61100-61299)</b>			
61110 Postage, Box Rent, etc.	708	715	1,000
611XX Transportation of Goods (61180-61190)	639	640	800
61210 Electricity			
61220 Gas			
61230 Water & Sewage			
<b>TOTAL (B)</b>	<b>1,347</b>	<b>1,355</b>	<b>1,800</b>
<b>C. PUBLIC INFORMATION ((61300-61399)</b>			
61310 Advertising & Public Information			
61340 Signs & Billboards			
61350 Exhibits & Displays			
<b>TOTAL (C)</b>			
<b>D. RENTS (61400-61499)</b>			
61420 Building & Floor Space	3,150	1,000	4,000
61430 Land			
61440 Office Equipment			
61460 Other Equipment			
61470 Capitol Facilities - Rental			
61480 Exhibits, Displays & Conference Rooms			
<b>TOTAL (D)</b>	<b>3,150</b>	<b>1,000</b>	<b>4,000</b>
<b>E. REPAIRS &amp; SERVICES (61500-61599)</b>			
61500 Grounds, Walks, Fences & Lots	6,498	6,800	10,000
61520 Buildings	24,443	24,750	30,000
61530 Machinery & Field Equipment			
61540 Motor Vehicles			
61550 Office Equipment & Furniture			
61580 Shop Equipment			
61590 Miscellaneous Items of Equipment			
<b>TOTAL (E)</b>	<b>30,941</b>	<b>31,550</b>	<b>40,000</b>
<b>F. FEES, PROFESSIONAL &amp; OTHER SERVICES (61600-61699)</b>			
61610 Engineering			
61615 SAAS Fees - DFA			
61616 MMRS Fees			
61620 Department of Audit			
6162X Accounting (61621-61624)			
6163X Legal (61630-61636)	31	65	100
6164X Medical Services (61640-61646)			
61650 State Personnel Board			
6165X Personnel Services Contracts (61651-61653)			
61658 Personnel Services Contracts - SPAHRS			
6166X Court Costs & Reporters (61661-61666)			
61670 Laboratory & Testing Fees	1,590	2,000	2,500
6168X Contract Worker (61682-61688)			
61690 Other Fees & Services	660		

**SCHEDULE B  
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>TOTAL (F)</b>	<b>2,281</b>	<b>2,065</b>	<b>2,600</b>
<b>G. OTHER CONTRACTUAL SERVICES (61700-61899)</b>			
61700 Liability Insurance Pool Contributions (Tort Claims)			
61710 Insurance & Fidelity Bonds			
61715 Insurance Computer Equipment			
61720 Membership Dues			
61721 Subscriptions			
Laundry and Dry Cleaning	35	45	75
Custodial Services	44,110	44,800	49,000
Maintenance Contracts - Equipment	1,290	1,325	2,000
Pest Control	60	75	120
Garbage Disposal	1,605	1,700	2,100
Computer Usage Charges	1,890	1,950	2,500
Software Maintenance	14,150	15,000	22,000
Membership Dues	1,693	1,700	2,100
Contractual Services - HPC Retainage	231,600	230,000	245,000
Other Miscellaneous Contractual Services (includes MTA)	500,125		
<b>TOTAL (G)</b>	<b>796,558</b>	<b>296,595</b>	<b>324,895</b>
<b>H. INFORMATION TECHNOLOGY (61900-61990)</b>			
61902 IS Professional Fees - Outside Vendor			
61905 IS Professional Fees - ITS			
6191X IS Training/Education (61914-61915)			
61917 Service Charges to State Data Center			
61918 Data Entry			
61921 Software Acquisition and Installation	19,540	20,000	30,000
61922 Basic Telephone Monthly - Outside Vendor	10,064	10,400	15,000
61923 Basic Telephone Monthly - ITS	38,299	39,000	45,000
61924 Long Distance Charges - Outside Vendor	1,307	1,500	2,100
61925 Long Distance Charges - ITS	5,799	6,000	8,000
61926 Private Data Line Monthly Charges - Outside Vendor			
61927 Private Data Line Monthly Charges - ITS			
61928 Public Network Access Charges - Outside Vendor	1,890	1,950	2,500
61929 Public Network Access Charges - ITS			
6193X IS Related Rentals (61932-61933)			
61938 Pager Usage Time - Outside Vendor			
61939 Cellular Usage Time - Outside Vendor			
61961 Maintenance/Repair of IS Equipment			
61962 Maintenance/Repair of Telephone Systems (ITS)			
<b>TOTAL (H)</b>	<b>76,899</b>	<b>78,850</b>	<b>102,600</b>
<b>I. OTHER (61991-61999)</b>			
6199X Prior Year Expense (61996-61998)			
61999 Contractual Services - No PO Required			
<b>TOTAL (I)</b>			

**SCHEDULE B**  
**CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>GRAND TOTAL</b> <i>(Enter on Line I-B of Form MBR-1)</i>	<b>911,886</b>	<b>411,915</b>	<b>477,895</b>
<b>FUNDING SUMMARY:</b>			
GENERAL FUNDS	911,886	411,915	477,895
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
<b>TOTAL FUNDS</b>	<b>911,886</b>	<b>411,915</b>	<b>477,895</b>

**SCHEDULE C  
COMMODITIES**

MSU - Center for Advanced Vehicular Systems  
Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>A. MAINTENANCE &amp; CONSTR. MATERIALS &amp; SUPPLIES (62010-62099)</b>			
62040 Lumber Parts			
62050 Steel & Other Metals			
62060 Paints	444	475	500
<b>Total (A)</b>	<b>444</b>	<b>475</b>	<b>500</b>
<b>B. PRINTING &amp; OFFICE SUPPLIES &amp; MATERIALS (62100-62199)</b>			
62110 Printing Binding	1,008	1,100	1,500
62120 Duplication & Reproduction Supplies			
62130 Office Supplies & Materials	3,778	3,900	5,000
62140 Paper Supplies	4,771	4,850	6,800
62150 Maps, Manuals, Library Books			
62160 Office Equipment (not capital outlay)	14,565	14,850	20,000
<b>Total (B)</b>	<b>24,122</b>	<b>24,700</b>	<b>33,300</b>
<b>C. EQUIPMENT REPAIR PARTS, SUPPLIES &amp; ACCES. (62200-62299)</b>			
62210 Fuels - Gasoline			
62251 Repair Vehicle			
62270 Radio & TV Supply & Repair			
62271 Repair of Comm Systems, Parts			
62290 Other Equipment Repair Parts			
<b>Total (C)</b>			
<b>D. PROFESSIONAL &amp; SCI. SUPPLIES AND MATERIALS (62300-62399)</b>			
62330 Photographic Supplies			
62340 Drugs & Chemicals - Medical & Lab Use			
62390 Other Professional Scientific			
<b>Total (D)</b>			
<b>E. OTHER SUPPLIES &amp; MATERIALS (62400-62999)</b>			
62420 Hardware, Plumbing & Electrical	2,191	2,300	2,600
62450 Janitor Supplies & Cleaning	600	750	1,200
62460 Wearing Material			
62470 Food	1,806	2,000	2,500
62520 Decal Signs			
62530 Uniforms & Wearing Apparel			
62560 Eating Utensils			
62590 Other Supplies & Materials	62,426	65,000	72,500
62595 Other Equipment (less than \$1,000)			5,000
<b>Total (E)</b>	<b>67,023</b>	<b>70,050</b>	<b>83,800</b>
<b>GRAND TOTAL (A, B, C, D &amp; E)</b> <i>(Enter on Line I-C of Form MBR-1)</i>	<b>91,589</b>	<b>95,225</b>	<b>117,600</b>
<b>FUNDING SUMMARY:</b>			
GENERAL FUNDS	91,589	95,225	117,600
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
<b>TOTAL FUNDS</b>	<b>91,589</b>	<b>95,225</b>	<b>117,600</b>

**SCHEDULE D-1  
CAPITAL OUTLAY  
OTHER THAN EQUIPMENT**

MSU - Center for Advanced Vehicular Systems  
Name of Agency \_\_\_\_\_

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>A. LANDS (63100-63199)</b>			
63110 Land for Buildings			
63120 Land for Right-of-Way			
63130 Land for Aggregates			
63170 Land Purchased for Other Purposes			
<b>TOTAL (A)</b>			
<b>B. BUILDINGS &amp; IMPROVEMENTS (63200-63299)</b>			
63250 Buildings - Purchased, Constructed, Remodeled			
<b>TOTAL (B)</b>			
<b>C. INFRASTRUCTURE &amp; OTHER (63500-63999)</b>			
635XX Other			
639XX Other			
<b>TOTAL (C)</b>			
<b>GRAND TOTAL</b> <i>(Enter on Line I-D-1 of Form MBR-1)</i>			
<b>FUNDING SUMMARY:</b>			
GENERAL FUNDS			
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
<b>TOTAL FUNDS</b>			

**SCHEDULE D-2  
CAPITAL OUTLAY EQUIPMENT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

EQUIPMENT BY ITEM	Act. FY Ending June 30, 2011		Est. FY Ending June 30, 2012		Req. FY Ending June 30, 2013		
	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Cost Per Unit	Total Cost
<b>A. VEHICLES (see form MBR-1-D-3)</b>							
<b>B. ROAD MACHINERY, FARM &amp; OTHER EQUIPMENT</b>							
63320 Road Machinery							
<b>TOTAL (B)</b>							
<b>C. OFFICE MACHINES, FURNITURE, FIXTURES, EQUIP.</b>							
63330 Office Equipment, Furniture	5	23,000	3	16,000	3	5,500	16,500
<b>TOTAL (C)</b>		<b>23,000</b>		<b>16,000</b>			<b>16,500</b>
<b>D. IS EQUIPMENT (DP &amp; TELECOMMUNICATIONS)</b>							
63421 IT/IS Equipment							
<b>TOTAL (D)</b>							
<b>E. EQUIPMENT - LEASE PURCHASE (63460-63476)</b>							
63462 Lease-Purchase - Information Systems Equipment							
634XX Lease Purchases							
63463 Lease-Purchase - Telecom. Infrastructure / Equipment							
63468 Lease-Purchase - Telephone Equipment							
63469 Lease-Purchase - Two-way Radio Equipment							
63476 Lease-Purchase - Other Equipment							
<b>TOTAL (E)</b>							
<b>F. OTHER EQUIPMENT</b>							
63490 Other Equipment					1	159,322	159,322
63396 Betterments or Accessories for Vehicles							
63495 Betterments or Accessories for Other than Vehicles							
Explorer MX4F digital recording system	1	5,039					
<b>TOTAL (F)</b>		<b>5,039</b>					<b>159,322</b>
<b>GRAND TOTAL</b> <i>(Enter on Line I-D-2 of Form MBR-1)</i>		<b>28,039</b>		<b>16,000</b>			<b>175,822</b>
<b>FUNDING SUMMARY:</b>							
GENERAL FUNDS		28,039		16,000			175,822
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
<b>TOTAL FUNDS</b>		<b>28,039</b>		<b>16,000</b>			<b>175,822</b>

**SCHEDULE D-3  
PASSENGER/WORK VEHICLES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	Vehicle Inventory June 30, 2011	FY Ending June 30, 2011		FY Ending June 30, 2012		FY Ending June 30, 2013	
		No. of Vehicles	Actual Cost	No. of Vehicles	Estimated Cost	No. of Vehicles	Requested Cost
<b>A. PASSENGER &amp; WORK VEHICLES (63310, 63390-63400)</b>							
63310 Automobile, Compact Sedan (AU CS)							
63310 Automobile, Full Size Sedan (AU FS)							
63310 Automobile, Mid Size Sedan (AU MS)							
63310 Automobile, Mid Size Station Wagon (AU MW)							
63310 Automobile Utility (AU UT)							
63390 Truck, Carry-All (TK CA)							
63390 Truck, Compact Pickup (TK CU)							
63390 Truck, Dump Bed (TK DU)							
63390 Truck, Medium Duty 2.5 Ton (TK MD)							
63390 Truck, Mid Size Pickup (TK MU)							
63391 Truck, Heavy Duty 5 Ton (TK HD)							
63391 Truck, Heavy Duty Pickup (TK HU)							
63392 Sport Utility Vehicle (TK SU)							
63393 Van, Cargo (VN CD)							
63393 Van, Full Size (VN FV)							
63393 Van, Mid Size (VN MV)							
63400 Other Vehicles							
<b>TOTAL (A)</b>							
<b>B. BETTERMENTS OR ACCESSORIES FOR VEHICLES (63395)</b>							
63395 Betterments or Accessories for Vehicles							
<b>TOTAL (B)</b>							
<b>GRAND TOTAL</b> <i>(Enter on Line I-D-3 of Form MBR-1)</i>							
<b>FUNDING SUMMARY:</b>							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
<b>TOTAL FUNDS</b>							

**SCHEDULE D-4  
WIRELESS COMMUNICATION DEVICES**

MSU - Center for Advanced Vehicular Systems  
Name of Agency \_\_\_\_\_

MINOR OBJECT OF EXPENDITURE	Device Inventory	Act FY Ending June 30, 2011		Est FY Ending June 30, 2012		Req FY Ending June 30, 2013	
	June 30, 2011	No. of Devices	Actual Cost	No. of Devices	Estimated Cost	No. of Devices	Requested Cost
<b>A. CELLULAR PHONES (63435)</b>							
63435 Cellular Phones							
<b>Total (A)</b>							
<b>B. PAGERS (63434)</b>							
63434 Pagers, Paging Equipment							
<b>Total (B)</b>							
<b>C. WIRELESS PERSONAL DIGITAL ASSISTANTS (63435)</b>							
63435 Wireless PDAs, Blackberry, etc							
<b>Total (C)</b>							
<b>GRAND TOTAL</b> <i>(Enter on Line 1-D-4 of Form MBR-1)</i>							
<b>FUNDING SUMMARY:</b>							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
<b>TOTAL FUNDS</b>							

**SCHEDULE E  
SUBSIDIES, LOANS & GRANT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013
<b>A. SCHOOL GRANTS TO COUNTIES &amp; MUNICIPALITIES (64000-64599)</b>			
<b>TOTAL (A)</b>			
<b>B. GRANTS TO I.H.L. &amp; OTHER POLITICAL SUBDIVISIONS (64600-64699)</b>			
<b>TOTAL (B)</b>			
<b>C. GRANTS TO NON-GOVERNMENT INSTNS &amp; INDS (64700-64999)</b>			
<b>TOTAL (C)</b>			
<b>D. DEBT SERVICE &amp; JUDGEMENTS (65000-65399)</b>			
65040 Interest on Lease Purchases			
<b>TOTAL (D)</b>			
<b>E. OTHER (66000-89999)</b>			
Cost Share on Joint Industry / University / Federal	320,662	320,000	340,000
Fellowships	18,000	18,000	26,000
Dyno Building Expansion Support	85,367		
Start-up Commitments	113,556	115,000	150,000
<b>TOTAL (E)</b>	<b>537,585</b>	<b>453,000</b>	<b>516,000</b>
<b>GRAND TOTAL</b> <i>(Enter on Line I-E of Form MBR-1)</i>	537,585	453,000	516,000
<b>FUNDING SUMMARY:</b>			
GENERAL FUNDS	537,585	453,000	516,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
<b>TOTAL FUNDS</b>	<b>537,585</b>	<b>453,000</b>	<b>516,000</b>

**NARRATIVE**  
**2013 BUDGET REQUEST**

MSU - Center for Advanced Vehicular Systems

Name of Agency

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, structural integrity, hybrid power train design, energetics, advances in improved design and predictability as well as advances in improved diagnostics, manufacturing, training systems, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

The research groups within CAVS are dynamic with the ability to maximize the utilization of advancing technologies. In recognition that today's complex problems facing manufacturing competitiveness and product safety and reliability must be addressed by cross-disciplinary teams, CAVS researchers approach the problems from diverse viewpoints to arrive at appropriate solutions. Each group at CAVS shares a passion for helping industry realize and sustain a competitive advantage within the global economy.

In support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. With a staff of about 250 faculty, research staff, postdocs, and students, the engineering enterprise of the Center for Advanced Vehicular Systems is well situated to support the research needs of industry.

CAVS is in a strong growth mode that is already creating a regional resource for the recruiting of automotive and related industries. The recent recruitments of PACCAR and Toyota to the state of Mississippi were facilitated by the core competencies in research, extension, and automotive related academic prowess at CAVS. As the US economy is turning around these two organizations are coming on-line in 2011 and are in need of support from CAVS. CAVS has also been proven to be a leading economic development engine for the State of Mississippi. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 4-year period of 2006-2010, CAVS has had more than \$5 billion economic impact on the state and is responsible for over 2,400 jobs created or retained. As for the quality of the students being produced by MSU's engineering programs and CAVS, the winning of the overall 4-year DOE/GM ChallengeX program is evidence that is hard to beat of the quality of our students. Also, after the second year of competition in the new DOE/GM EcoCar Challenge the MSU team was in first place out of 17 teams.

CAVS represents a commitment by the State of Mississippi to work with and support Mississippi industry through project-based activities. The management at CAVS and the research team in general, recognize the need to generate economic development via technological and scientific discovery. This means CAVS serves as a knowledge resource for existing and future Mississippi industries. As with all academic research centers, CAVS is dependent on stable infrastructure support to ensure the best and brightest engineering talent is brought to bear on the regional growth initiatives and development of a strong R&D infrastructure to support the emerging Southern Automotive Corridor. CAVS now serves as an active member of the Mississippi Automotive Manufacturers Association (MAMA) and it has established a close working relationship with the Nissan assembly facility in Canton. In fact, CAVS was the recipient of the 2010 MAMA Award of Excellence for promoting the growth, development and improvement of the automotive industry. CAVS faculty and staff are continuing to work closely with MDA and local economic development authorities throughout the state in recruiting new industry to the state. The State infrastructure funds allow CAVS to build toward its basic mission, with already much evidence of impact via an effective engineering capability to support Mississippi industry. Having access to knowledgeable researchers and providing leading edge capabilities is an important asset for the State.

**NARRATIVE**  
**2013 BUDGET REQUEST**

MSU - Center for Advanced Vehicular Systems

Name of Agency

Recurring State funding for CAVS is required as the foundation continues to be built via the development of the facilities, staff, and knowledge base. Current State funding is critical to supporting the infrastructure while seeding new research initiatives, student activities, and engineering extension. Further, many recent activities have helped Mississippi industry via workforce training, short courses, and partnerships designed to attract federal and industrial funding. At present, the State support is providing less than 20 percent of the total CAVS operating funds. Continued leveraging of the State funding is critical to building a self-sustaining organization satisfying the obligations of CAVS to our partners, the state, and the university.

In 2013, CAVS has requested an increase in its State funding. This request is asked to help with infrastructural costs associated with new industry that need technical support (e.g., the new PACCAR diesel engine manufacturing facility, Toyota and GreenTech Automotive vehicle production) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned it was focused on conventional automotive vehicles (i.e., gasoline fueled internal combustion engines) and a manufacturing focus in the Canton area. We are now dealing with the reality that the industry is changing to biofuels and electric hybrids. CAVS work with ChallengeX and EcoCAR has positioned it well to support the needs of Toyota, GreenTech Automotive and their Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities to position it to provide the level of support necessary for supporting the Mississippi hybrid electric vehicle industry. Also, with PACCAR building large diesel engines in Columbus, there is a need to expand CAVS engine test facilities to better accommodate PACCAR's need for engineering test capability. Also, there is a need to reach out beyond the Canton based engineering extension activity and to better support statewide industry. This additional funding will be used to situate CAVS to be better able to support Mississippi industry over the next 5 years.

**OUT-OF-STATE TRAVEL  
FISCAL YEAR 2011**

MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2011 on Form Mbr-1, line I.A.2.b.

<b>Employee's Name</b>	<b>Destination</b>	<b>Purpose</b>	<b>Travel Cost</b>	<b>Funding Source</b>
Wheeler, Rachel	Troy, Michigan	Training at Nissan Technical Center	1,486	General Funds
Al-Shubailat, Omar	Troy, Michigan	Training at Nissan Technical Center	1,883	General Funds
Al-Shubailat, Omar	Grand Rapids, Michigan	Training at LMS and SAE Conf	2,309	General Funds
Asadi, Ebrahim	Dayton, Ohio	Present at American Society of Composites	437	General Funds
Sheely, Robert	Nashville, Tennessee	Southeast US/Japan Meeting	1,279	General Funds
Richardson, Mary Ann	Isle of Palms, South Carolina	NCURA Conference	873	General Funds
Branch, Victor	Philadelphia, Pennsylvania	Career & Technical Education Conference	1,211	General Funds
<b>Total Out of State Travel Cost</b>			<b>\$9,478</b>	

**FEES, PROFESSIONAL AND OTHER SERVICES**  
**(EXPENDITURE CODES 61600-61699)**

MSU - Center for Advanced Vehicular Systems

Name of Agency

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2011	(2) Estimated Expenses FY Ending June 30, 2012	(3) Requested for FY Ending June 30, 2013	Fund Num.
61610 Engineering					
<b>TOTAL 61610 Engineering</b>					
61615 SAAS Fees - DFA					
<b>TOTAL 61615 SAAS Fees - DFA</b>					
61616 MMRS Fees					
<b>TOTAL 61616 MMRS Fees</b>					
61620 Department of Audit					
<b>TOTAL 61620 Department of Audit</b>					
6162X Accounting (61621-61624)					
<b>TOTAL 6162X Accounting (61621-61624)</b>					
6163X Legal (61630-61636)					
David Ware & Associates / Legal Fees		31	65	100	
<i>Comp. Rate: \$75/hour</i>					
<b>TOTAL 6163X Legal (61630-61636)</b>		<b>31</b>	<b>65</b>	<b>100</b>	
6164X Medical Services (61640-61646)					
<b>TOTAL 6164X Medical Services (61640-61646)</b>					
61650 State Personnel Board					
<b>TOTAL 61650 State Personnel Board</b>					
6165X Personnel Services Contracts (61651-61653)					
<b>TOTAL 6165X Personnel Services Contracts (61651-61653)</b>					
61658 Personnel Services Contracts - SPAHRS					
<b>TOTAL 61658 Personnel Services Contracts - SPAHRS</b>					
6166X Court Costs & Reporters (61661-61666)					
<b>TOTAL 6166X Court Costs &amp; Reporters (61661-61666)</b>					
61670 Laboratory & Testing Fees					
CAVS Service Center / Scientific Testing		1,590	2,000	2,500	General
<i>Comp. Rate: \$75/hour</i>					
<b>TOTAL 61670 Laboratory &amp; Testing Fees</b>		<b>1,590</b>	<b>2,000</b>	<b>2,500</b>	
6168X Contract Worker (61682-61688)					
<b>TOTAL 6168X Contract Worker (61682-61688)</b>					
61690 Other Fees & Services					
Russell Enterprises / Striping of parking lot @ Canton		660			General
<i>Comp. Rate: \$45 per hour</i>					
<b>TOTAL 61690 Other Fees &amp; Services</b>		<b>660</b>			
<b>GRAND TOTAL (61600-61699)</b>		<b>2,281</b>	<b>2,065</b>	<b>2,600</b>	

**VEHICLE PURCHASE DETAILS**

MSU - Center for Advanced Vehicular Systems \_\_\_\_\_

Name of Agency

<b>Year</b>	<b>Model</b>	<b>Person(s) Assigned To</b>	<b>Vehicle Purpose/Use</b>	<b>FY2013 Req. Cost</b>
				0
				<hr/>
				<b>0</b>
			<b>TOTAL VEHICLE REQUEST</b>	<b>0</b>

**VEHICLE INVENTORY  
AS OF JUNE 30, 2011**

MSU - Center for Advanced Vehicular Systems \_\_\_\_\_

Name of Agency

Veh. Type	Vehicle Descript.	Model Year	Model	Person(s) Assigned To	Purpose/Use	Tag Number	Mileage On 6-30-11	Average Miles per Year	Replacement Proposed	
									FY 2012	FY 2013

Vehicle Type = Passenger/Work

**PRIORITY OF DECISION UNITS  
FISCAL YEAR 2013**

MSU - Center for Advanced Vehicular Systems \_\_\_\_\_  
Agency Name

Program	Decision Unit	Object	Amount
<b>Priority # 1</b>			
Program # 1 : RESEARCH			
	Restoration of Funds		
		Salaries	103,964
		Travel	10,500
		Contractual	28,980
		Commodities	20,375
		Equipment	144,822
		Subsidies	14,964
		<b>Total</b>	<b>323,605</b>
		General Funds	323,605
<b>Priority # 2</b>			
Program # 2 : PUBLIC SERVICE			
	Restoration of Funds		
		Salaries	12,889
		Travel	1,000
		Contractual	37,000
		Commodities	2,000
		Equipment	15,000
		Subsidies	48,036
		<b>Total</b>	<b>115,925</b>
		General Funds	115,925

**CAPITAL LEASES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

Vendor/ Item Leased	Original Date of Lease	Original Number of Months of Lease	Number of Months Remaining on 6-30-11	Last Payment Date	Interest Rate	Amount of Each Monthly/Yearly Payment			Total of Payments to be Made							
						Principal	Interest	Total	Actual FY 2011	Estimated FY 2012			Requested FY 2013			
										Principal	Interest	Total	Principal	Interest	Total	
/	//	0	0	//	.000											

## Summary of 3% General Fund Program Reduction to FY2012 Appropriated Funding by Major Object

MSU - Center for Advanced Vehicular Systems \_\_\_\_\_

Major Object	FY2012 GENERAL FUND REDUCTION	AFFECT ON FY2012 STATE SUPPORT SPECIAL FUNDS	AFFECT ON FY2012 FEDERAL FUNDS	AFFECT ON FY2012 OTHER SPECIAL FUNDS	TOTAL 3% REDUCTIONS
PERSONAL SERVICES	( 100,146)				( 100,146)
TRAVEL					
CONTRACTUAL SERVICES					
COMMODITIES					
OTHER THAN EQUIPMENT					
EQUIPMENT					
VEHICLES					
WIRELESS COMM. DEVICES					
SUBSIDIES, LOANS, ETC					
<b>TOTALS</b>	<b>( 100,146)</b>				<b>( 100,146)</b>